Utah Science and Engineering Education Standards
UT SEEd Standards
Roadmap to the New Format for UT Science Standards

Root Question:

This question is designed to meet the following needs.

a. Provide a narrative that group the PE's

b. Developed as a research style question that could guide a group of students down this learning path

c. The question was designed from a way that could be investigated from multiple angles and pathways and disciplines.

d. Students should be able to answer this question at the conclusion of instruction.

Performance Expectation:

Prior standards documents listed what students should "know" or "understand." These ideas needed to be translated into performances that could be assessed to determine whether or not students met the standard. Different interpretations sometimes resulted in assessments that were not aligned with curriculum and instruction. The UT SEEd standards revision groups are developing performance expectations (PE's) that state what students should be able to do in order to demonstrate that they have met the standard, thus providing the same clear and specific targets for teachers to design curriculum, instruction, and assessment. These ALWAYS combine a crosscutting concept, science and engineering practice, and disciplinary core idea(s) into each performance expectation.

Utah Clarification Statement:

This provides details to help further explain the performance expectation. It can provide exemplars and/or connections to specific UT phenomena to help create a context to inform curriculum, instruction, and assessment.

SAGE Boundary: This articulates the limitations of the statewide assessment specific to the PE. The boundary is specific to the SAGE assessment and does not directly limit assessment stemming from classroom instruction.

Connection with UT Math Standards: Here is where there are specific UT math standard connections that are highlighted as a primary connection to the performance expectation.	***Cross Cutting Concepts***	This box includes statements derived from the Framework's list of crosscutting concepts, which apply to one or more of the performance expectations above. Most sets of PE's limit the number of crosscutting concepts so as focus on those that are readily apparent when considering the Science Core Ideas. The list is not exhaustive nor is it intended to limit instruction. *(NRC Framework K-12 Science Education, Page 83)*
Connection with UT Literacy and ELA Standards: Here is where specific UT Literacy Standards for Science as well as ELA standards are highlighted as a primary connection to the performance expectation.	***Science and Engineering Practices***	This box includes the science and engineering practices used to construct the performance expectations above. These statements are derived from and grouped by the eight categories detailed in the Framework to further explain the science and engineering practices important to emphasize in each grade band. Most sets of performance expectations emphasize only one of the practice categories; however, all practices are emphasized within a grade band. Teachers should be encouraged to utilize several practices in any instruction, and need not be limited to a single practice, which is only intended to guide assessment. *(NRC Framework K-12 Science Education, Page 41)*
Connection with UT Social Studies Standards: *These connections are still being considered while social studies works on standard review and revision. These will be included in a later draft.*	***Science Disciplinary Core Ideas***	The science core idea box includes statements that are taken from the Framework about the most essential ideas in the major science disciplines that all students should understand during 13 years of school. These detailed statements was very helpful to support teachers as they analyze and "unpack" the disciplinary core ideas and sub-ideas to reach a level that is helpful in describing what each student should understand about each sub-idea. Each of the bulleted statements relates back to the K-12 Framework for Science Education. *(NRC Framework K-12 Science Education, Page 103)*

NRC Framework K-12 Science Education: http://www.nap.edu/catalog.php?record_id=13165